

Descriptions of two new species of the genus *Ypthima* Hübner (Lepidoptera: Satyridae) from North and Central Vietnam

Yoshinobu UÉMURA¹⁾ and Alexander L. MONASTYRSKII²⁾

¹⁾Toyosato Museum of Entomology, Tohigashi 676, Tsukuba, Ibaraki, 300-2633 Japan

²⁾Vietnam-Russia Tropical Centre, Nghia Do-Cau Giay, Hanoi, Vietnam

Abstract Two new species, *Ypthima frontierii* sp. nov. and *Y. pseudosavara* sp. nov., from North and Central Vietnam are described and illustrated.

Key words Taxonomy, Lepidoptera, Satyridae, *Ypthima*, *Ypthima frontierii* sp. nov., *Ypthima pseudosavara* sp. nov., Oriental region, Vietnam.

During our joint study of satyrid butterflies from north and central Vietnam we found two new species belonging to the genus *Ypthima* Hübner. Before compiling a revisional catalogue of the genus *Ypthima* from Vietnam in a forthcoming paper, we describe them in the following lines as taxa new to science.

Ypthima frontierii Uémura & Monastyrskii, **sp. nov.** (Figs 1a–c, 2, 4–9)

Wet-season form ♂ (Figs 4–5). Upperside of forewing: Ground colour umber brown; inner and outer discal fasciae absent; submarginal fascia dark, weakly developed; marginal fascia indistinct; subapical ocellus large, slightly oblique, black, bipupilled and rather narrowly yellow-ringed; fringe dark brown; brand invisible to naked eye. Upperside of hindwing: Ground colour umber brown; inner and outer discal fasciae absent; submarginal fascia as on forewing, but broadened in spaces 3, 4 and 5; unipupilled ocellus present in space 2, single minute ocellus absent in space 1b; fringe dark brown. Underside of forewing: Ground colour greyish-brown, closely and delicately striated with dark brown; inner and outer discal fasciae absent; submarginal fascia weakly developed; marginal fascia dark and distinct; subapical ocellus large, slightly oblique, black, bipupilled and broadly yellow-ringed; fringe dark brown. Underside of hindwing: Ground colour greyish-brown; closely and delicately striated with dark brown; inner and outer discal fasciae absent; submarginal fascia absent; marginal fascia dark and distinct; large single pupilled subapical ocellus present in space 6; small single pupilled subternal ocellus present in space 2; bipupilled small ocellus present in space 1b; fringe dark brown.

Wet-season form ♀. Marking generally the same as in the male.

Dry-season form ♂ (Figs 6–7). Marking generally the same as in the wet-season form. Underside of hindwing: whitish band from apex to middle of inner margin similar to *Ypthima insolita* Leech, 1891; all ocelli reduced to black dots.

Dry-season form ♀ (Figs 8–9). Marking generally the same as in the male. Ground colour slightly paler.

Androconia (Figs 1a–c). Very short, bottle-like shaped base with very slender, prolonged neck.

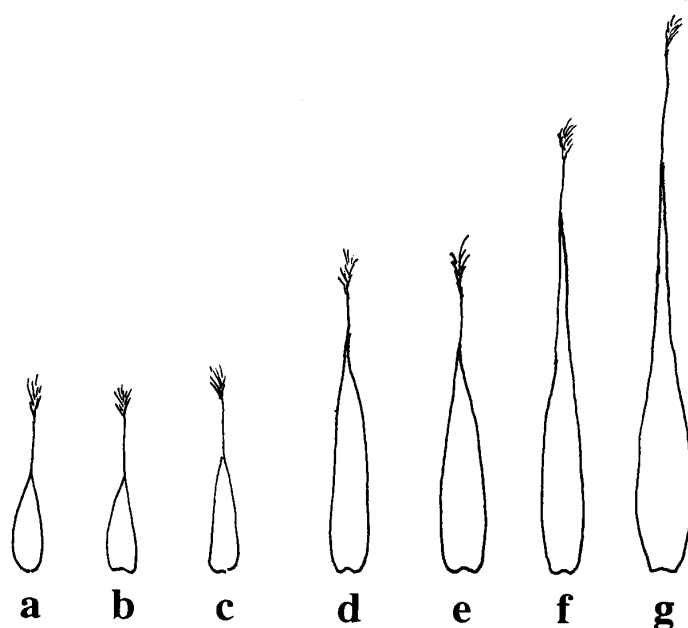


Fig. 1. Androconia of *Ypthima* spp. a-c. *Y. frontieri* sp. nov. d-e. *Y. pseudosavara* sp. nov. f-g. *Y. savara tonkiniana* Fruhstorfer (f: Ben En National Park, North Annam, g: Ba Be National Park, Tonkin).

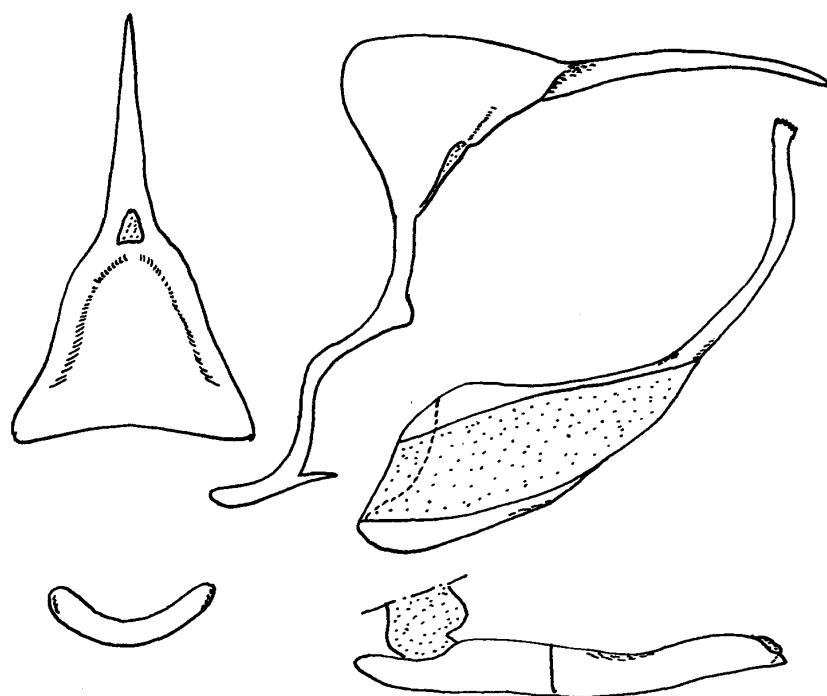
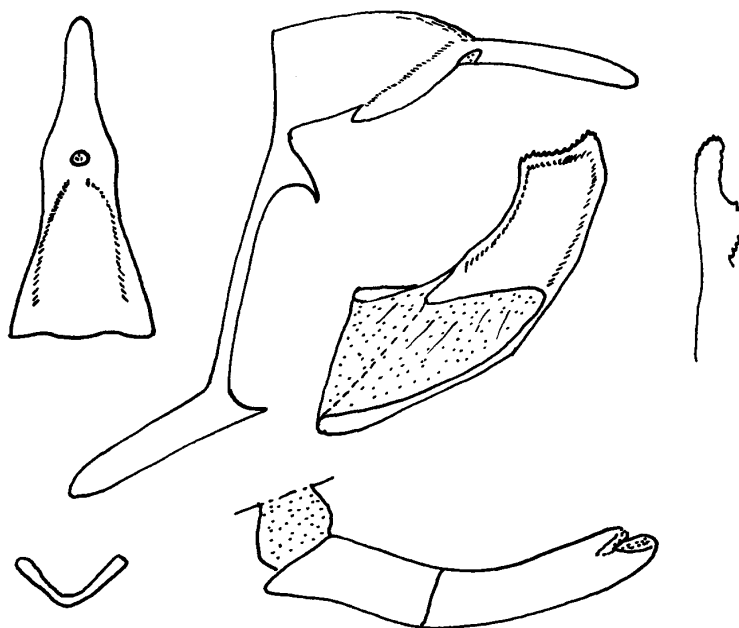
Male genitalia (Fig. 2). Tegumen in dorsal view broad at base and narrowed posteriorly, posterior margin rather strongly bulged and gradually sunk; in lateral view distinctly higher than vinculum; appendix angularis short and broad, not curved inward. Uncus subequal in length to tegumen, gradually tapering to apex; in lateral view not curved ventrally, with very narrow membranous slit at the base. Fenestrula of a rather broad membranous dorsal spot. Saccus less than $1/4\times$ as long as ring. Aedeagus in lateral view rather weakly curved upwards. Valva in lateral view rather broad at base and strongly narrowed beyond middle; costa continuous to ampulla+harpe; apex serrate laterodistally.

Length of forewing. ♂, 21.0–22.0 mm ($n=5$); ♀, 22.0–23.0 mm ($n=2$).

Geographical distribution. North Vietnam. So far the species has been found in the Hoang Lien Nature Reserve near Sapa settlement.

Holotype ♂ (dry-season form), North Vietnam, Lao Cai Province, Sa Pa alt. ca 2,000 m (103°46'E, 22°15'N), iii. 1995 (collected by the organization Frontier-Vietnam), preserved in Toyosato Museum of Entomology, Tsukuba. Paratypes. 2 ♂ 1 ♀ (dry-season form), North Vietnam, Lao Cai Province, Sa Pa, iii. 1995 (collected by the organization Frontier-Vietnam); 1 ♂ (dry-season form), North Vietnam, Lao Cai Province, Hoang Lien Nature Reserve, 19. ii. 1998 (collected by the organization Frontier-Vietnam); 3 ♂ 1 ♀ (wet-season form), North Vietnam, Lao Cai Province, Hoang Lien Nature Reserve alt. ca 1,600 m, 22–25. viii. 1998 (collected by Vu Van Lien); 1 ♂ (wet-season form), North Vietnam, Lao Cai Province, Hoang Lien Nature Reserve, 31. vii. 1998 (collected by Bui Xuan Phuong). Preserved in Toyosato Museum of Entomology, Tsukuba, and Vietnam-Russia Tropical Centre, Hanoi.

Remarks. This new species belongs to the *megalomma*-group (*sensu* Shirôu & Shima, 1979; Shima, 1988). It seems to be distinguishable from all other known species of the *megalom*-

Fig. 2. Male genitalia of *Ypthima frontierii* sp. nov.Fig. 3. Male genitalia of *Ypthima pseudosavara* sp. nov.

ma-group by the following combination of characteristics. In both dry- and wet-season forms, the subapical ocellus on upperside of forewing is almost round and the submarginal fascia on upperside of forewing is distinctly dark although weakly developed. In wet-season form, the subapical ocellus in space 6 is larger than subtornal ocellus in space 2 on underside of hindwing. In dry-season form, a whitish band from apex to middle of inner margin is similar to *Y. insolita* Leech, 1891. In the male genitalia, dorsal margin of valva lacks a short

or very strong process.

The new species is dedicated to the organization Frontier-Vietnam, which collected it for the first time.

Ypthima pseudosavara Uémura & Monastyrskii, **sp. nov.** (Figs 1d-e, 3, 10-13)

Wet-season form ♂ (Figs 10-13). Upperside of forewing: Ground colour greyish-brown; inner discal fascia absent; outer discal fascia dark, weakly developed; submarginal fascia dark, rather developed; marginal fascia distinct; subapical ocellus large, black, single pupilled and rather broadly yellow-ringed, placed within a large pale area which narrows posteriorly and reaches vein 1b; fringe dark brown; brand invisible to naked eye. Upperside of hindwing: Ground colour greyish-brown; inner discal fascia indistinct; outer discal fascia dark and weakly developed; submarginal fascia dark, rather prominent; unipupilled ocellus present in spaces 2 and 3, double minute ocelli present in space 1b, additional small ocelli sometimes present in spaces 5 and 6; all ocelli placed in a pale band; fringe dark brown. Underside of forewing: Ground colour greyish-brown, sparsely striated with dark brown; inner and outer discal fasciae dark, prominent; submarginal fascia weakly developed; marginal fascia distinct; subapical ocellus large, slightly oblique, black, bipupilled and broadly yellow-ringed; fringe dark brown. Underside of hindwing: Ground colour greyish-brown; sparsely striated with dark brown; inner and outer discal fasciae dark, prominent; submarginal fascia weakly developed; marginal fascia distinct; with six ocelli in pairs, single pupilled subapical small ocelli present in spaces 5 and 6, medium sized single pupilled subternal ocelli present in spaces 2 and 3, double minute ocelli present in space 1b; fringe dark brown.

Wet-season form ♀. Marking generally the same as in the male.

Dry-season form. Unknown.

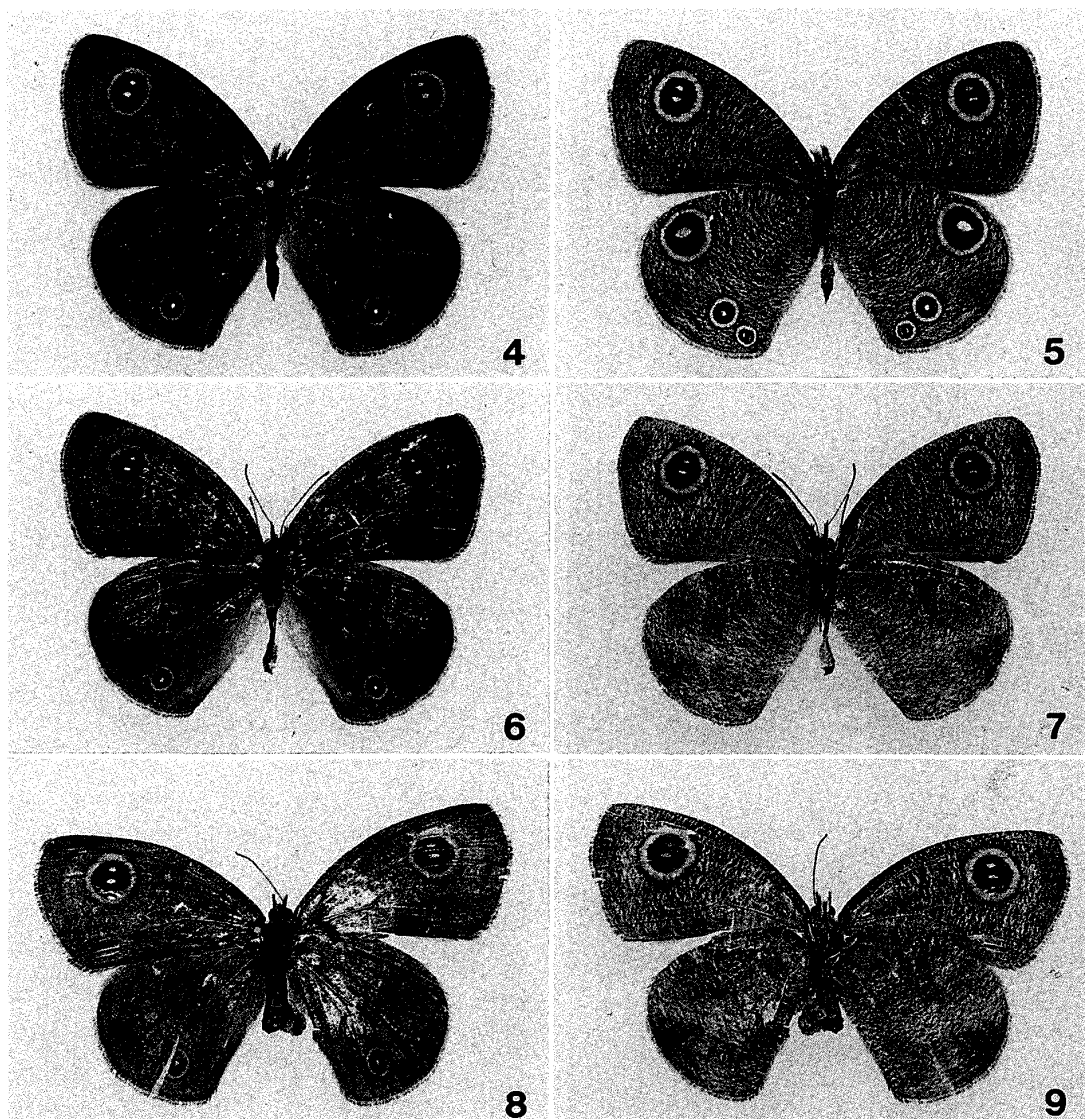
Androconia (Figs 1d-e). Rather short, relatively long triangular base and gradually narrowed towards apex.

Male genitalia (Fig. 3). Tegumen in dorsal view rather narrow, weakly narrowed posteriorly; in lateral view nearly subequal in height to vinculum; appendix angularis long and broad, weakly curved inward. Uncus in lateral view weakly curved downwards, with rather broad membranous slit at the base. Fenestrula of a membranous dorsal spot. Saccus approximately $1/2 \times$ as long as ring. Aedeagus in lateral view more or less strongly curved dorsally. Valva rather broad, in lateral view concave at middle of apical portion; ampulla+harpe strongly projected as a cork-screw; costa long and narrow.

Length of forewing. ♂, 22.0-25.5 mm ($n=3$).

Geographical distribution. Northern sites of central Vietnam.

Holotype ♂, Central Vietnam, Thanh Hoa Province, Nhu Xuan district, Ben En National Park (105°21'-105°35'E, 19°30'-19°40'N), 24. vii. 1997 (collected by the organization Frontier-Vietnam), preserved in Toyosato Museum of Entomology, Tsukuba. Paratypes. 2 ♂, Central Vietnam, Thanh Hoa Province, Nhu Xuan district, Ben En National Park, 31. vii. 1997 and 1. viii. 1997 (collected by the organization Frontier-Vietnam); 2 ♂, Central Vietnam, Nghe An Province, Pu Mat Nature Reserve, 4-8. vii. 1998 (collected by the organization Fauna & Flora International); 1 ♂, Central Vietnam, Thanh Hoa Province, Xuan Lien Nature Reserve, 450 m, bamboo, 29. x. 1998 (collected by A. Monastyrskii); 1 ♂

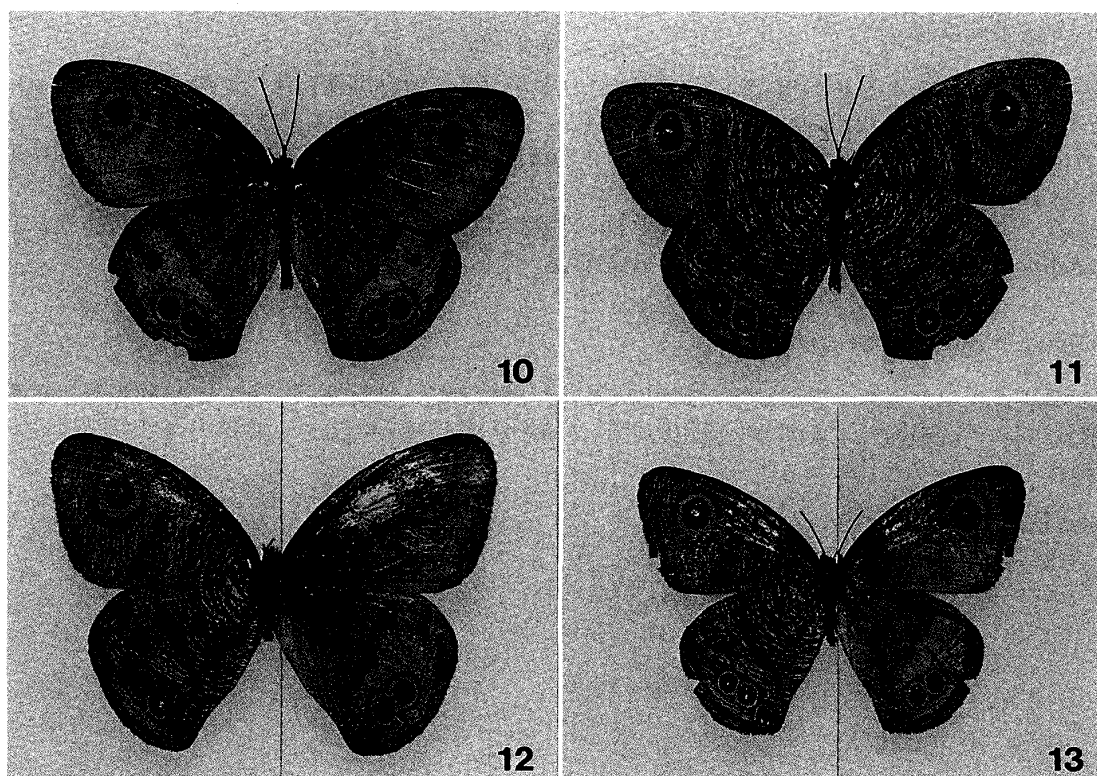


Figs 4–9. *Ypthima frontierii* sp. nov. 4. Paratype ♂ (wet-season form), upperside. 5. *Ditto*, underside. 6. Holotype ♂ (dry-season form), upperside. 7. *Ditto*, underside. 8. Paratype ♀ (dry-season form), upperside. 9. *Ditto*, underside.

1 ♀, Central Vietnam, Nghe An Province, Pu Hoat Nature Reserve, 16–18. iv. 1999 (collected by the organization Frontier-Vietnam). Preserved in Toyosato Museum of Entomology, Tsukuba, and Vietnam-Russia Tropical Centre, Hanoi.

Remarks. This new species belongs to the *sakra*-group (*sensu* Shirôzu & Shima, 1979; Shima, 1988), and it is easily distinguishable from all other species of the *sakra*-group by the unusual greyish-brown ground colour. It seems to be most closely related to *Y. savara* Grose-Smith, 1887 judging from the structure of the male genitalia and the shape of androconia. In Ben En National Park, this new species flies with *Y. savara tonkiniana* Fruhstorfer, 1911 which occurs from north to central Vietnam.

This new species was caught for the first time by volunteers from the organization Frontier-Vietnam (United Kingdom) in Ben En National Park (North Annam).



Figs 10-13. *Ypthima pseudosavara* sp. nov. 10. Holotype ♂, upperside. 11. *Ditto*, underside. 12. Paratype ♂, upper- and underside. 13. *Ditto*, upper- and underside.

Acknowledgements

We express our sincere thanks to volunteers from Frontier-Vietnam and Fauna & Flora International who provide of us with valuable material, to the administration of Vietnam-Russia Tropical Centre, and personally to David L. Hulse WWF Representative in the country for support of field surveys in Hoang Lien. Moreover in the course of preparing this paper we received much help from Mr K. Morishita of Zushi, Japan in proofreading the manuscript.

References

- Shima, H., 1988. Phylogenetic relationships of the genus *Ypthima* Hübner (Lepidoptera, Satyridae). *Spec. Bull. lepid. Soc. Japan* (6): 69-81 (in Japanese with English Summary).
 Shirôzu, T. & H. Shima, 1979. On the natural groups and their phylogenetic relationships of the genus *Ypthima* Hübner mainly from Asia (Lepidoptera: Satyridae). *Sieboldia* 4: 231-295, pls 18-71.

摘 要

北部および中部ベトナム産ウラナミジャノメ属 (鱗翅目, ジャノメチョウ科) の2新種の記載 (植村好延・Alexander L. Monastyrskii)

著者らは、ベトナム産のウラナミジャノメ属の総説をまとめるにあたり、2新種を見い出したので、総説に先行してここに記載する。

1. *Ypthima frontierii* sp. nov.

ベトナム北部のサパおよびその周辺地域で得られた 8 ♂ 2 ♀ (雨期型 4 ♂ 1 ♀, 乾期型 4 ♂ 1 ♀) で記載した。本新種は *megalomma* グループに所属し, 雨期型, 乾期型ともに前翅表面の眼状紋がほぼ円形に近いこと, 前翅表面の亜外縁条が発現は弱い濃色であること, 雨期型では後翅裏面の第 6 室の眼状紋は第 2 室の眼状紋よりも明瞭に大型となること, 乾期型では後翅裏面は *Y. insolita* のように雲形の斑紋を装おうこと, ♂ 交尾器の valva 背面に独特の突起を欠くことなどの特徴を総合することで *megalomma* グループに属する他のすべての既知種から区別される。

2. *Ypthima pseudosavara* sp. nov.

ベトナム中部のベンエン他 3 箇所得られた 7 ♂ 1 ♀ (雨期型) (乾期型は未知) で記載した。本新種は *sakra* グループに所属し, 表面の灰褐色の地色で *sakra* グループに属する他のすべての既知種から区別される。

(Accepted December 3, 1999)